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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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23373	7590	10/11/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			JOLLEY, KIRSTEN	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,102

Applicant(s)

FERBER ET AL.

Examiner

Kirsten C. Jolley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 15, lines 2-3, the phrase “namely to individual, prefabricated blanks or to a continuous material web used for the production of blanks for packs” is vague and indefinite because the use of “namely” makes it unclear whether application to blanks or to a continuous web is required or not.

Similarly, in claim 15, line 4, the phrase “namely glue pressure” and in line 11, the phrase “namely by means of a pressure control valve (37) in the glue line (32)” are vague and indefinite because the use of “namely” makes it unclear whether these limitations are required in the claims or not.

In claim 18, lines 2-3, the phrase “namely glue areas (16) on one hand, and, arranged offset to the latter, glue strips, on the other hand” is vague and indefinite because it is not clear whether this limitation is required or not.

In claim 21, line 5, the phrase “namely the desired layer thickness of the glue and/or the viscosity of the glue” is vague and indefinite because it is not known whether the conveying speed is required to be a function of these parameters or not.

In claim 22, line 10, the phrase “namely glue pressure” is vague and indefinite because it is not clear in the claim whether this more specific limitation is required or not.

In claim 23, lines 5-6, the phrase “namely as a velocity curve, on one hand, and as a pressure curve, on the other,” is vague and indefinite because the use of “namely” makes it unclear whether these limitations are required in the claim.

In claim 25, lines 3-5, the phrase “namely a plurality of glue areas (16)...” is vague and indefinite for similar reasons as discussed above.

In claim 25, lines 9-10, the phrase “namely with glue strips (20)...” is vague and indefinite for similar reasons as discussed above.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 15 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Collin et al. (US 2002/0022080 A1).

Collin et al. discloses a process for applying spots of adhesive paste to successive objects such as paper or cardboard blanks which are converted into soft or hinged lid packs (abstract) using a plurality of nozzles 16 with closeable nozzle openings, each of which is controlled by a discrete valve 14 (paragraph [0032]). The glue is supplied under pressure that can be adjusted on an individual basis as determined by the conveying speed of the packaging material [0014-0016]

as required by claim 15. It is the Examiner's position that the valve 14 meets the limitation of a pressure control valve because it regulates the glue pressure in the region of the glue nozzles.

The valve 14 cuts on and off the glue pressure based on the substrate moving to a position where glue is desired -- i.e., the valve 14 controls the glue to have a pressure in the nozzle when it is actuated to be open, and controls the glue to have zero pressure in the nozzle when it is closed.

Collin et al. teaches that the condition of the valve 14 is changed in response to electric signals from the control unit 17 (paragraph [0035]), and the control unit 17 is equipped with sensors which monitor the acceleration, deceleration, movements, and periods of standstill of the conveyor 3 (paragraph [0036]). Thus the pressure control valve 14 is connected via control lines to a common machine control unit 17 for the purpose of regulating the pressure control valve 14 in accordance with the conveying speed of the packaging machine.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16-19 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collin et al.

As to claims 16 and 23, Collin et al. does not specifically teach that glue pressure is adjusted by a PC connected to the control unit 17. It is the Examiner's position that connection to a PC, controllable by a plant engineer, would have been obvious to one having ordinary skill

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in the art in order to have input variables (control programs) into the control system such as the size and shape of the substrates, the desired size and thickness of the deposited glue, the characteristics of the particular adhesive used, etc. in order to determine the desired control program for the control unit.

As to claim 17, Collin et al. is silent with regard to the specific type of valve used for valve 14. It is well known that some valves may be actuated by compressed air. It would have been obvious for a design engineer having ordinary skill in the art to have used a valve actuable by compressed air, and thus the control unit would control the compressed air via a control line, with the expectation of successful results since air-actuated valves are known in the art.

As to claims 18 and 21, Collin et al. teaches that the opening and closing of the valve 14 is determined to guarantee application of patches having "a predetermined (requisite) quantity of adhesive", or mass of the spot (paragraph [0037]). Thus Collin et al. teaches that the quantity, and therefore thickness, of each adhesive patch is predetermined. It would have been obvious to a skilled engineer from this disclosure of Collin et al. that the layer thicknesses of different regions/patches may be different.

As to claim 22, Collin et al. teaches the use of sensors (scanning devices) to monitor the movement of the conveyor (paragraph [0036]), including a sensor which monitors the speed of a rotary component of the conveyor, or a resolver. Collin et al. does not specifically teach that the sensor measures a change in the rotation angle of the resolver to calculate a velocity value. However, it would have been obvious to one having ordinary skill in the art to have used any known resolver sensing device, including the claimed resolver, to sense the speed of the

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conveyor with the expectation of successful results since Collin et al. is not limited as to means for calculating the speed.

As to claim 25, Collin et al. teaches that the glue patches are applied to form hinged-lid packs for cigarettes. While Collin et al. does not teach the particular glue areas claimed (along edge strips and in the region of cover tabs), it is the Examiner's position it would have been obvious for a design engineer to have determined the particular placement, size, shape, thickness of the glue patches as a matter of design preference/construction of the cigarette packs.

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collin et al. as applied to claim 15 above, and in further view of Heide (US 2001/0018818 A1).

Claim 25 is alternately rejected over Collin et al. in view of Heide. Heide discloses a process for applying adhesive to selected portions of successive blanks of a series of moving blanks that can be used for packets of cigarettes (abstract). Each blank receives three patches or strips of films of adhesive. One of these strips can serve to bond a flap at one end of a carton, the other strip bonds a flap at the other end of a carton, and the third strip contains adhesive for the longitudinally extending flap which separably bonds the cover of the carton to a front wall of the latter [0038]. The flow of adhesive to the specific part of the blank is controlled by a valve, which regulates the flow of adhesive from the nozzle. Heide also discloses the importance of correctly placing the adhesive to the blanks in order to avoid applying adhesive film to parts of the blank that should not receive adhesive which results in bonding parts of the blank that are not to be bonded together and failure to bond parts that are to be bonded together. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify

the process of Collin et al. to include applying adhesive to specific areas of the blanks as taught by Heide. One would have been motivated to do so because both discloses processes for applying adhesive for the use of cigarette packaging and Heide discloses the importance of applying adhesive to certain parts of a blank in order to ensure proper bonding to form a carton.

8. Claims 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estelle et al. (US 6517891 B1) in view of Heide (US 2001/0018818 A1).

Estelle et al. discloses a process for controlling the speed of a motor on a metering pump that provides pressurized fluid to a dispensing gun where the dispensing gun is opened or closed to dispense fluid onto a substrate being carried by a conveyor past the dispensing gun. The pressure is controlled by the conveying speed (abstract) and flow is also controlled by the conveyor speed (abstract). Estelle et al. discloses that the process can be used to dispense viscous materials such as hot melt adhesives (column 1, lines 6-9). Estelle et al. further discloses the importance of consistent application of adhesive in packaging and plastics industries (column 1, lines 13-17) because inconsistency can result in unusable and scrap product and increases costs (column 1, lines 17-20). Estelle et al. does not disclose that the process is used to dispense glue onto packaging material as required by claim 15.

Heide discloses a process for applying adhesive to selected portions of successive blanks of a series of moving blanks that can be used for packets of cigarettes (abstract). The flow of adhesive to the specific part of the blank is controlled by a valve, which regulates the flow of adhesive from the nozzle, similar to Estelle et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Estelle et al.

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to be used to dispense adhesive to blanks used in packaging as taught by Heide. One would have been motivated to do so because both disclose processes for dispensing adhesive to a substrate and both references disclose the importance of dispensing adhesive to a substrate used for packaging consistently (in order to avoid scraps and increase in costs), as well as the importance of applying the adhesive to the correct areas of the blank.

Estelle et al. discloses application of glue by means of glue nozzles with closeable nozzle openings which are supplied with glue under pressure. Estelle et al. teaches that the glue is fed by a glue pump 52 through a glue line to a glue assembly equipped with glue nozzles. It is the Examiner's position that the dispensing valve 50 meets the limitation of a pressure control valve which regulates the glue pressure in the region of the glue nozzles. Estelle et al. teaches that the dispensing valve 50 cuts on and off the glue pulse based upon the substrate moving to a position where glue is desired, which is based on the conveying speed of the substrate. At the on cycles, the valve controls the glue to have a pressure in the nozzle, and at the off cycles the valve controls the glue to have zero pressure in the nozzle (col. 5, lines 21-43). Further, Estelle et al. teaches that the valve 50 is connected by control lines to a common machine control unit (system control 42 which communicates with the pattern controller 44 and gun controller 38).

As to claims 16 and 23, Estelle et al. does not specifically teach that glue pressure is adjusted by a PC connected to the system control 42. However, Estelle et al. teaches that a user interface is provided with the system control 42. It is the Examiner's position that it would have been obvious to one having ordinary skill in the art to have provided input via a PC, controllable by a plant engineer, as the user interface in order to input variables (control programs) into the control system such as the size and shape of the substrates, the desired size and thickness of the

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deposited glue, the characteristics of the particular adhesive used, etc. in order to determine the desired control program for the control unit.

As to claim 17, Estelle et al. is silent with regard to the specific type of valve used for valve 50. It is well known that some valves may be actuated by compressed air. It would have been obvious for a design engineer having ordinary skill in the art to have used a valve actuatable by compressed air, and thus the control unit would control the compressed air via a control line, with the expectation of successful results since air-actuated valves are known in the art.

As to claims 18 and 21, Estelle et al. teaches that the metering pump dispenses the volume of fluid supplied to the dispensing valve. Estelle et al. does not teach that different regions of the packaging material have different layer thicknesses. However it is the Examiner's position that it would have been obvious to a skilled engineer that larger or smaller thicknesses may be achieved by controlling the pump and valve based upon the speed of the substrate with the expectation of successful results.

As to claim 22, Estelle et al. teaches the use of conveyor feedback device 34 for sensing the speed of the conveyor. However Estelle et al. fails to teach the specifics of the feedback device 34, including the type of sensor used. It would have been obvious to one having ordinary skill in the art to have used any known conveyor speed scanning device as conveyor feedback device 34, including the claimed resolver, to sense the speed of the conveyor with the expectation of successful results since Estelle et al. is not limited as to means for providing conveyor speed feedback.

As to claim 25, Heide discloses that each blank receives three patches or strips of films of adhesive. One of these strips can serve to bond a flap at one end of a carton, the other strip bonds a flap at the other end of a carton, and the third strip contains adhesive for the longitudinally extending flap which separably bonds the cover of the carton to a front wall of the latter [0038]. Heide discloses the importance of correctly placing the adhesive to the blanks in order to avoid applying adhesive film to parts of the blank that should not receive adhesive which results in bonding parts of the blank that are not to be bonded together and failure to bond parts that are to be bonded together. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Estelle et al. to include applying adhesive to specific areas of cigarette pack blanks, such as those claimed, as taught by Heide because Heide discloses the importance of applying adhesive to certain parts of a blank in order to ensure proper bonding to form a carton.

Response to Arguments/Amendments

9. The 35 USC 112, 2nd paragraph rejections have been withdrawn in response to the amendments to the claims.
10. Applicant's arguments filed July 18, 2002 have been fully considered but they are not persuasive.

With respect to the 35 USC 102(b) and 103(a) rejections over Collin et al., Applicant argues that Collin fails to specify whether the pressure regulator 13 is adjustable and under what conditions any change, for example in pressure, is made. Applicant states that it is assumed that the pressure regulator 13 in Collin merely has the task of maintaining constant pressure

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conditions. Applicant also argues that Collin makes no change of glue pressure in order to influence the glue spots. The Examiner notes that, in the rejections as currently applied in response to the claim amendments, valve 14 is considered to meet the limitation of a pressure control valve, for the reasons discussed in more detail above in section 4. The valve 14 cuts on and off the glue pressure based on the substrate moving to a position where glue is desired -- i.e., the valve 14 controls the glue to have a pressure in the nozzle when it is actuated to be open, and controls the glue to have zero pressure in the nozzle when it is closed.

With respect to the 35 USC 103(a) rejections over Estelle et al., Applicant argues that changes in glue pressure are exclusively achieved by altering the delivery rate of the glue pump. The Examiner acknowledges that changes in glue pressure are achieved in Estelle et al. by the glue metering pump and that there are significant differences between Applicant's invention and Estelle et al. However, it is the Examiner's position that dispensing valve 50 meets the limitation of a pressure control valve as claimed, and that dispensing valve 50 also locally controls glue pressure in the nozzle. As discussed in more detail above, Estelle et al. teaches that the dispensing valve 50 cuts on and off the glue pulse based upon the substrate moving to a position where glue is desired, which is based on the conveying speed of the substrate. At the on cycles, the valve controls the glue to have a pressure in the nozzle, and at the off cycles the valve controls the glue to have zero pressure in the nozzle (col. 5, lines 21-43). Therefore it is the Examiner's position that the prior art of Estelle et al., taken in view of Heidi, reads on the invention as claimed.

Conclusion

11. Applicant's amendments necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C. Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Kirsten C Jolley
Primary Examiner
Art Unit 1762

kcj